

# Product Overview

# Dialight LumiDrives



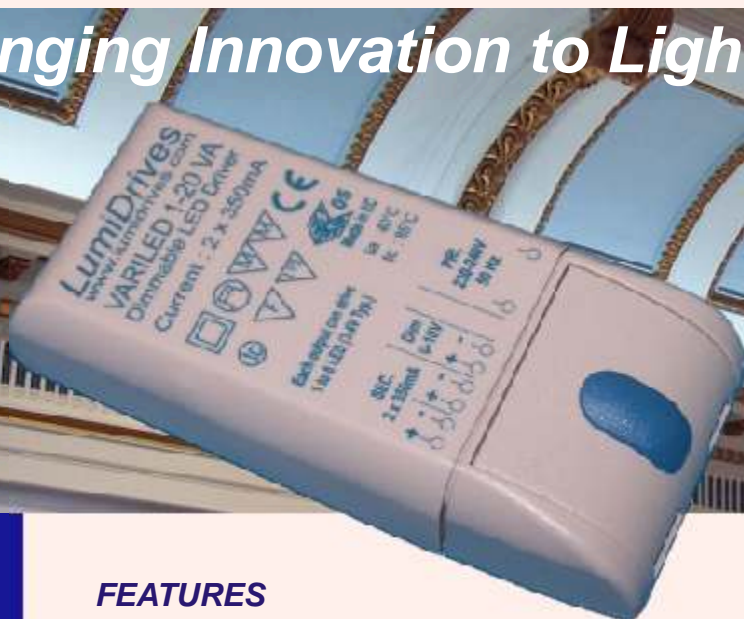
## MicroDriver™ 16 VariLED ~ Dimmable LED Driver

The **MicroDriver™ 16 VariLED** LED Power Driver is ideal for driving high power 1W or 3W LEDs from a 230V AC supply in a host of applications. The compact and efficient power electronics ensure optimum operation of LEDs through a highly stable constant current output.

Designed for driving 16 x 1W LEDs at 350mA or 8 x 3W LEDs at 700mA with maximum reliability and long service life, the **MicroDriver™ 16 VariLED** will work in ambient temperatures of up to 40°C. Beyond this range a thermal shut down circuit will operate to protect the driver and the connected LEDs.

The low profile enclosure incorporates integral cable grips and terminal cover enabling the unit to be directly used in ceiling voids or other internal exposed applications. The **MicroDriver™ 16 VariLED** has two dimming options using either 0-10V dimming or dimming with a remote potentiometer.

## Bringing Innovation to Light

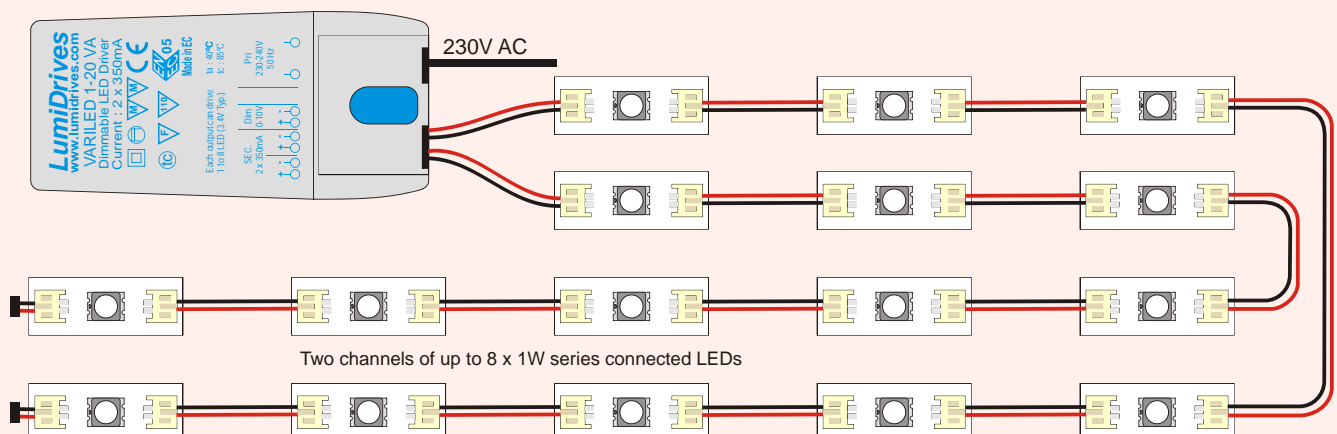


### FEATURES

- Energy efficient switch mode power electronics*
- Short and open circuit protected*
- Remote potentiometer or 0-10V dimming*
- Fully isolated twin outputs.*
- Rugged design with terminal cover & cable grip*
- Meets lighting approbation requirements ( CE & ENEC )*
- Can be integral with fixtures or remote mounted*
- Resetting Thermal Shutdown*

### APPLICATIONS

- ⚙ *Architectural lighting*
- ⚙ *Marker & Orientation lights*
- ⚙ *Reading Lamps*
- ⚙ *Cove & Cornice Lighting*
- ⚙ *Display Cases*
- ⚙ *Spot Lights*
- ⚙ *Signage*
- ⚙ *Fibre Optic systems*

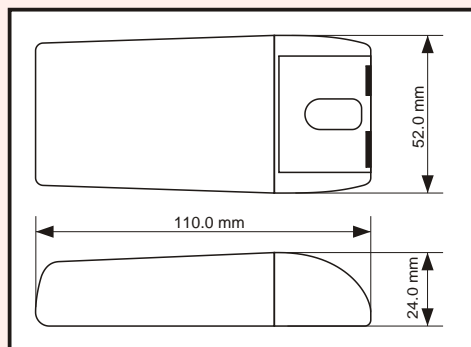


Two channels of up to 8 x 1W series connected LEDs

MicroDriver™ 16 VariLED - Typical connection

MicroDriver™ 16 VariLED

## Dimensions



## Mechanical

Dimensions L110 x W52 x H24  
Weight 105 g.

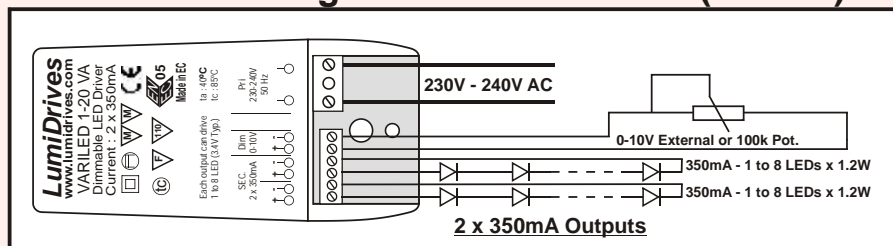
AC Input Screw Terminals

LED Output Screw Terminals

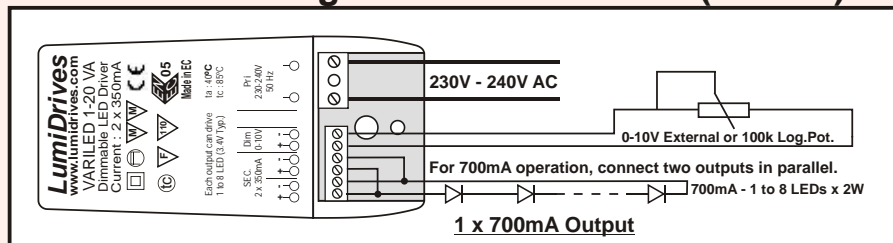
Dimming Screw Terminals

Mounting Single 3.0mm  
fixing hole.

## Connection Configuration - 2 x 8 LEDs (350mA)



## Connection Configuration - 1 x 8 LEDs (700mA)



## Electrical

Input Voltage Range	( $V_{in}$ )	230V - 240V AC
Frequency	(f)	50 / 60 Hz
Power Consumption	( $P_{in}$ )	1 - 20 W
Efficiency	( $\eta$ )	70% - 80% typical
Insulation		Non-Insulated
Power Output Range	( $P_{och}$ )	1.2 - 9.6 W (x 2)
Output Current	( $I_o$ )	350mA $\pm$ 7.5% (x 2)
Output Voltage	( $V_o$ )	4 - 32 V DC (x 2)
Open Circuit Voltage	( $V_{oc}$ )	40V DC
Ripple Voltage	( $V_r$ )	50mV pk-pk
Dimming		Optional 100k Log. Potentiometer or 0 - 10V dimming (See note 1)
Dimming Range		10% to 100%
Protection		Thermal Overload Overvoltage Short Circuit Open Circuit

## Environmental

Operating Ambient Temperature	( $T_{op}$ )	-20°C to +40°C
Ambient Storage Temperature	( $T_{st}$ )	-20°C to +85°C
Case Temperature	( $T_c$ )	<+85°C
Lifetime (failures after 50,000 hours) ( $L_{50k}$ )		5%
IP Rating		IP30

## Terminations Access



Easily Removable Cover



Input and Output Screw Terminations

## Part Number

**MDE16 - C - VRL**

**MicroDriver™ 16 VariLED**

0-10V or Potentiometer Dimmable  
16 LEDs @ 350mA / 8 LEDs @ 700mA

## Notes:

Note 1: Colour shift in LED output may occur at low dimming levels. Please check application suitability before specification.

If multiple drivers (max. 50) need to be dimmed at the same time, parallel the dimming connections together and divide 100k by the number of drivers to find the correct pot value.